Atty. Dkt. No. 039153-0484 (G1190)

## Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

## Listing of Claims:

1. (Previously Presented) A method of using an adhesion precursor in an integrated circuit fabrication process, the method comprising:

providing a first gas over a dielectric material to form an adhesion precursor layer, the dielectric material including an aperture, the first gas including a ternary element of Iridium, Ruthenium, or Rhenium; and

providing a second gas including an alloying agent over the adhesion precursor layer to provide a copper layer over the adhesion precursor layer.

- 2. (Previously Presented) The method of claim 1, wherein the adhesion precursor layer includes a barrier material.
- 3. (Original) The method of claim 1, wherein the adhesion precursor layer has a thickness of 10-100 Angstroms.
- 4. (Original) The method of claim I, further comprising providing a second gas of a second material over the adhesion precursor layer.
- 5. (Previously Presented) A method of using an adhesion precursor in an integrated circuit fabrication process, the method comprising:

providing a first gas over a dielectric material to form an adhesion precursor layer, the dielectric material including an aperture; and

providing a second gas of a second material over the adhesion precursor layer; and

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providing a copper layer over the adhesion precursor layer, wherein the second gas includes tin (Sn), indium (In), zinc (Zn), or chromium (Cr.), wherein the first gas includes a ternary element of at least one of Iridium, Ruthenium, or Rhenium.

- 6. (Original) The method of claim 4, further comprising providing a third gas of a third material over a layer formed by the second gas.
- 7. (Previously Presented) A method of using an adhesion precursor in an integrated circuit fabrication process, the method comprising:

providing a gas of a first material over a dielectric material to form an adhesion precursor layer, the dielectric material including an aperture, the first material including a ternary element of Iridium, Ruthenium, or Rhenium; and

providing a second gas of a second material over the adhesion precursor layer; providing a third gas over a third material over a layer formed by the second gas;

providing a copper layer over the adhesion precursor layer, wherein the third gas includes an alloying element.

- 8. (Previously Presented) The method of claim 9, further comprising providing a gas including an alloying agent over the adhesion precursor layer.
- 9. (Previously Presented) A method of using an adhesion precursor in an integrated circuit fabrication process, the method comprising:

providing a gas of a first material over a dielectric material to form an adhesion precursor layer, the dielectric material including an aperture; and

providing a copper layer over the adhesion precursor layer, wherein the adhesion precursor layer includes a ternary element of Iridium, Ruthenium, or Rhenium.

10. (Previously Presented) A method of improving adhesion between a copper layer and a dielectric layer by providing an adhesion precursor, the method comprising:

forming a trench in a dielectric layer;

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and

providing an adhesion precursor gas above the dielectric layer and the trench to form an adhesion precursor layer, wherein the adhesion precursor layer includes a ternary element of Iridium, Ruthenium, or Rhenium;

providing an alloy layer above the adhesion precursor layer; and providing a copper layer above the alloy layer.

- 11. (Original) The method of claim 10, wherein the adhesion precursor layer has a thickness of 10-100 Angstroms.
- 12. (Original) The method of claim 10, further comprising providing a blending layer over the adhesion precursor layer, wherein the blending layer includes an alloying material.
- 13. (Previously Presented) The method of claim 10, wherein the adhesion precursor layer includes a material being selected from a group consisting of tantalum nitride, tungsten nitride, or disilicon nitride.
- 14. (Original) The method of claim 10, wherein the alloy layer has a thickness of up to 50 Angstroms.
- 15. (Previously Presented) A method of using an adhesion precursor for chemical vapor deposition, the method comprising:

forming a trench in a dielectric layer;

forming a continuous barrier adhesion precursor layer above the dielectric layer and along sides of the trench;

depositing copper above the continuous barrier layer, the copper located in the trench forming an integrated circuit feature, wherein the continuous barrier adhesion precursor layer includes a ternary material selected from a group consisting of Iridium (Ir), Ruthenium (Ru) and Rhenium (Re).

16. (Previously Presented) The method of claim 15, wherein the continuous barrier adhesion precursor layer includes Rhenium.

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- 17. (Original) The method of claim 15, further comprising providing a chemical mechanical polish to level the copper to substantially the same level as the continuous barrier layer above the dielectric layer.
- 18. (Original) The method of claim 15, wherein the continuous barrier layer has a cross-sectional thickness of 10-100 Angstroms.
  - 19. (Original) The method of claim 15, wherein the feature is a via.
- 20. (Previously Presented) The method of claim 15, wherein the continuous barrier adhesion precursor layer includes tantalum nitride, tungsten nitride, or disilicon nitride.